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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,623	09/28/2000	MINORU KUSAKABE	862.C2011	8731
5514	7590	03/23/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			CARTER, TIA A	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	

2626

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/671,623

Applicant(s)

KUSAKABE ET AL.

Examiner

Tia A Carter

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-121 is/are pending in the application.
- 4a) Of the above claim(s) 1-46 and 59-121 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 47-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/3/04; 4/6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's election with traverse of claims 47-58 in the reply filed on 10 November 2004 is acknowledged. The traversal is on the ground(s) that the claims have sufficient overlap between the groups as to make prosecution of the application in its entirety. This is not found persuasive because claims 47-58 contain subject matter that does not rely upon the additional claims for the processing features cited. Claims 47-58 subject matter focuses on generating or creating dot patterns, halftoning specific regions in the image and processing the generated data as predetermined information for the image data to be processed.

The requirement is still deemed proper and is therefore made FINAL.

Applicant please note that upon further review, non-elected group 1 should be claims 1-24, 40, 59-67 and 91-121 and group 2 should be claims 25-39.

Claim Objections

2. Claim 52 is objected to because of the following informalities: claim 52 has a typographical error; the "whrein" should be spelled "wherein". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 47-53 and 57-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyabe et al. (US. 5606628).

Regarding claim 47, Miyabe et al. disclose an image processing apparatus, comprising:

generation means for (50) generating a plurality of types of second dot patterns corresponding to a first region smaller than a size of a first dot pattern representing predetermined information (fig 9a, col. 6, lines 11-38); and

embedding means (3) for selectively embedding the plurality of types of second dot patterns in units of first regions (fig. 9a, col. 6, lines 38-43).

Regarding claim 48, Miyabe et al. disclose the apparatus according to claim further comprising discrimination means (tempered document detector: col. 8, line 29) for discriminating characteristics of image information in the first region, wherein said embedding means selectively embeds the plurality of types of second dot patterns in

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units of first regions in accordance with a discrimination result from said discrimination means (fig. 13a, col. 8, lines 24-67 and col. 9, lines 1-14).

Regarding claim 49, Miyabe et al. disclose the apparatus according to claim 47, wherein the second dot pattern is a dot pattern formed from a single line (fig. 11, col. 6, lines 25-32).

Regarding claim 50, Miyabe et al. disclose the apparatus according to claim 47, wherein the first dot pattern patterns is formed by combining the second dot patterns (fig. 11, col. 6, lines 33-41).

Regarding claim 51, Miyabe et al. disclose the apparatus according to claim 47, wherein said embedding means quantizes the first region to output quantized image information containing the second dot pattern (fig. 13, col. 7, lines 40-62).

Regarding claim 52, Miyabe et al. discloses the apparatus The apparatus according to claim 51, further comprising determination means (follow outline unit 10) for determining a quantization condition on the basis of the image information the first region, the predetermined information, and the second dot pattern, wherein wherein the formed by combining the second dot said embedding means quantizes the first region on the basis of the determined quantization condition (fig. 13, col. 7, lines 40-62).

Regarding claim 53, Miyabe et al. disclose the apparatus according to claim 51, wherein the quantization is executed by pseudo-half-toning processing using error diffusion (fig. 11, col. 8, lines 56-67 and col. 9, lines 5-44).

Regarding claim 57, Miyabe et al. disclose an image processing method (figure 3), comprising:

plurality of types of second dot patterns corresponding to a first region smaller than a size of a first dot pattern representing predetermined information (fig 9a, col. 6, lines 11-38); and

an embedding step of selectively embedding the plurality of types of second dot patterns in units of first regions (fig. 9a, col. 6, lines 38-43).

Regarding claim 58, Miyabe et al. disclose a computer-readable memory (buffer 30), comprising:

a code for generating a plurality of types of second dot patterns corresponding to a first region smaller than a size of a first dot pattern representing predetermined information (fig. 3, col. 4, lines 9-22; fig 9a, col. 6, lines 11-38) and

a code for selectively embedding the plurality of types of second dot patterns in units of first regions (fig. 9a, col. 6, lines 38-43).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyabe et al. (US. 5606628) in view of Noguchi (US 2003/0007661).

Regarding claim 54, Miyabe et al. disclose the apparatus according to claim 48.

Miyabe et al. do not disclose wherein said discrimination means discriminates a quantization error previously generated in the first region by said embedding means

Noguchi discloses wherein said discrimination means (102) discriminates a quantization error previously generated in the first region by said embedding means (fig. 8a, page 6, para. [0119-0120]).

It would have been obvious to one skilled in the art at the time of the invention to modify Miyabe et al. wherein a logical loop is implemented to prevent encoding errors. This feature allows a secure document to be encoded properly preventing eyesight decryption.

Regarding claim 55, Miyabe et al. disclose the apparatus according to claim 48.

Miyabe et al. do not disclose wherein said discrimination means discriminates a type the second dot pattern previously embedded by said embedding means

Noguchi disclose wherein said discrimination means discriminates a type the second dot pattern previously embedded by said embedding means (fig. 8a, page 6, para [0117]-[0119]).

It would have been obvious to one skilled in the art at the time of the invention to modify Miyabe et al. wherein a logical loop is implemented to prevent encoding errors. This feature allows a secure document to be encoded properly preventing eyesight decryption.

Regarding claim 56, Miyabe et al. disclose the apparatus according to claim 48,

Miyabe et al. do not disclose wherein said embedding means inhibits embedding the second dot pattern when is determined on the basis of the discrimination result from said discrimination means that the first region has a predetermined density.

Noguchi disclose wherein said embedding means inhibits embedding the second dot pattern when is determined on the basis of the discrimination result from said discrimination means that the first region has a predetermined density (fig. 8a, page 6, para [0117]-[0119]).

It would have been obvious to one skilled in the art at the time of the invention to modify Miyabe et al. wherein a logical loop is implemented to prevent encoding errors. This feature allows a secure document to be encoded properly preventing eyesight decryption.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kurumida (US. 6126342) and Ohshita (US. 5638463) are cited to show related art with respect to data compression.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia A Carter whose telephone number is 703 - 306-5433. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

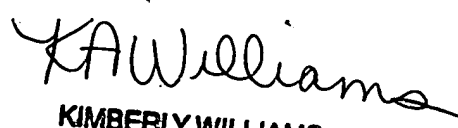
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